

REMARKS

Claims 1-9 and 26 are pending. Claims 1, 3, 7, 8 and 26 are amended. New claims 27 and 28 are added and are supported by originally-filed Figures 11 and 12.

Claims 1-9 and 26 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite. In accordance with the foregoing, Applicant has amended claims 1 and 26, thereby obviating the rejection.

Claims 1-9 and 26 stand variously rejected as being obvious over US RE 31,990 to Sluetz et al. (US RE 31,990) in view of Doan (US 7,031,774) and/or Goldreyer (US 4,365,639) with additional references cited in the rejection of some of the claims.

Claim 1 as amended recites a connector bore "being adapted to receive the lead connector of the lead body at a plurality of positions along the length of the connector bore such that at each position of the lead connector within the connector bore a first one of the lead connector contacts is electrically connected to the pulse generator by the first bore contact and a second one of the lead connector contacts that is inside the bore connector and the corresponding electrode joined to the second one of the lead connector contacts are electrically disconnected from the pulse generator".

The primary reference, Sluetz, shows a lead connector wherein the polarity of distal electrodes 68 and 69 can be reversed by axially repositioning the proximal end of the lead within the connector block assembly. Each electrode 68 and 69 and a connector ("electrode") coupled to the electrode is electrically connected to the tissue stimulator regardless of the positioning of the lead within the connector block. Sluetz fails to teach or suggest positioning a lead connector within a connector bore such that a lead connector contact and the corresponding electrode joined to the lead connector contact are electrically disconnected from the stimulating device.

The Examiner admits that Sluetz fails to teach a circumferential array of electrodes. Goldreyer is relied upon for disclosing a circumferential array of electrodes 21-24. The electrodes 21-24 are sensing electrodes, which are connected by conductors E1-4 to a pulse generator. Applicant maintains that all of the electrodes are

operative at the same time as discussed in the previous response, incorporated herein in its entirety. The Examiner has replied by stating that Goldreyer's electrodes are selectable citing the end of column 4 to the top of column 6. The passage cited by the Examiner does not correspond to what the Examiner attributes to it. Contrary to the Examiner's contention, each electrode is connected to the electronics package 10 (col. 4, lines 57-58). Each set of electrodes 21, 23 and 22, 24 provide a bipolar signal to two different differential amplifiers 27 and 28. A logic unit 29 functions to select the output signals of the differential amplifiers. As such, electrical connection of the electrodes 21-24 is not selectable as characterized by the office action. All of the sensing electrodes are connected to the pulse generator.

Accordingly, neither Sluetz nor Goldreyer, singly or combined, teach or suggest positioning a lead connector within a connector bore such that a lead connector contact and corresponding electrode are electrically disconnected from the stimulating device. Furthermore, Sluetz and Goldreyer are devoid of any motivation or suggestion for providing a connector bore adapted to receive a lead connector in a position that results in a lead connector and corresponding electrode electrically disconnected from the stimulation device. Sluetz teaches a pair of electrodes 68 and 69 that are both electrically connected to the stimulation device regardless of the position of the lead connector in the connector bore. If either one of the electrodes 68 or 69 were not electrically connected to the stimulating device, the Sluetz invention would not function as intended. Sluetz addresses changing the connections to the electrodes but never provides a reason or motivation to electrically disconnect an electrode.

The Examiner takes the position that Doan teaches an electrode selection means. The electrode selection means taught by Doan however, does not correspond to what the Examiner attributes to it. Doan discloses a mobile boot carrying mobile contacts movable between first and second positions on the lead body, distal to the proximal end and lead connectors 24 and 26. The Examiner improperly refers to the lead body along which the boot is positioned as a "lead connector". Doan's lead connectors 24 and 26 are connected to an electrical stimulation device in a single position providing electrical connection to both terminal contacts 70, 72 and 74,76 of the

lead connectors. As such, Doan does not remedy the deficiency of Sluetz in providing a lead connector and a pulse generator including a connector bore adapted to receive the lead connector at a plurality of positions along the length of the connector bore.

Furthermore, as discussed above, there is no motivation to modify the Sluetz invention to include positioning a lead connector within a connector bore such that a lead contact and corresponding electrode are electrically disconnected from the stimulating device. As such, Applicant respectfully asserts the rejection based on the combination of Sluetz, Goldreyer and Doan is insufficient to meet the pending claims should be withdrawn.

With regard to claim 2, none of the cited references, alone or in combination, teach or suggest "at each position of the lead connector within the connector bore an electrical connection is made between the second bore contact and a third one of the lead connector contacts." The Examiner's interpretation that "the connector comprises a second contact to make a second electrode as a connected active electrode because it is connected to the internal electronics" is a second bore contact electrically connected to a third lead connector contact at each position of the lead connector appears to be an improper reading of the claim language. In Sluetz' invention, the connection between a second bore contact and a lead contact is changed each time the lead connector assembly is repositioned within the female connector assembly. In other words, none of the bore contacts remain electrically connected to the same lead connector contact upon repositioning the lead connector assembly. None of the additionally cited references remedy this deficiency relating to a second bore contact remaining connected to a third lead connector contact for each position of the lead connector within the bore, while first and second lead connector contacts are either electrically connected or disconnected to the first bore contact as the lead connector position is changed.

With regard to amended claims 7 and 8, none of the cited references teach or suggest the deflectable member projects from the connector bore and is adapted to rest within the surface depression of each spacer or within a surface depression in an array of depressions spaced apart from the lead connector contacts for each position of the lead connector within the connector bore. Bischoff includes spacers between lead

connector contacts but is devoid of any teaching whatsoever of surface depressions in the spacers. Peers-Traverton fails to teach or suggest a deflectable member projecting from the connector bore.

With regard to claim 26, none of the cited references, alone or in combination, teach, suggest or imply "the first bore contact having a first length and the second bore contact having a second length less than the first length such that the first bore contact electrically connects to a first one of the lead connector contacts when the lead connector is positioned in a first position and in a second position". Applicant respectfully asserts claim 26, and new claims 27 and 28 dependent thereon, are allowable.

Applicant submits that the claims are in proper form and condition for allowance. A prompt issuance of a notice of allowance is requested.

Respectfully submitted,

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